REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application and Applicants submit that the amendment does not require further search.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-9, 11-23 and 25-29 are pending in this application. Claims 1, 2, 11, 15 and 29 are hereby amended. Claims 10 and 24 have been canceled without prejudice or disclaimer of subject matter. Claims 1 and 15 are independent. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1, 2, 4, 10, 11, 15, 16, 18, 24 and 26-29 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,373,861 to Lee (hereinafter, merely "Lee"). Applicants respectfully traverse the rejection for the following reasons.

Claim 1 has been amended to incorporate the subject matter of Claim 10 in order to clarify that the data samples are modulated onto the data bearing signal samples in the frequency domain and transformed into the time domain to form the data bearing signal samples of the received signal. Furthermore, Claim 1 recites that the sync position detected by the

inventive features of Claim 1 serves to identify a time sychronisation with respect to a window from which the data can be recovered. The data is recovered by performing a forward fourier transform, transforming the data from the time domain into the frequency domain. The fourier transform is performed on received signal samples falling within the window which is set at a temporal position with respect to the received signal samples identified by the sync position. The sync position is established by the correlation performed by the matched filter which is set to have an impulse response of the signal samples of the guard signals and then filters the received signal samples.

In contrast, as disclosed in Lee at column 7 between lines 27 and 41, because the receiver disclosed in Lee is concerned with frequency synchronization, there is no requirement to filter the received signal samples with a matched filter, the filter being matched to the guard signal samples. As such, in Lee a correlation value is detected by the correlation value detector 167 by "the shift index value from the shift index generator 167, which extracts a correlation value whilst shifting the guard interval and the copy data on a sample data unit basis." Therefore, Claim 1 is distinguished from what is disclosed in Lee by at least a matched filter having an impulse response which is matched by the controller to the samples of the guard interval and which produces an output signal which is representative of the convolution of the guard signal samples with the received signal samples.

Furthermore, Claim 1 is distinguished from Lee by the sychronisation detector detecting a sync position in accordance with the distribution of energy with respect to time of the matched filter output signal, and by performing a forward fourier transform on the signal samples within the window identified by the sync position.

It is therefore submitted that the features of Claim 1 are not disclosed or suggested and cannot be derived from Lee. Indeed, Lee directed to frequency synchronization whereas Claim 1 is directed to temporal synchronization of the received OFDM symbol. As such, the operation of the matched filter of Claim 1 differs from the operation of the correlation value detector disclosed in Lee.

For the above-stated reasons, Applicants respectfully submit that independent Claim 1 is patentable.

Independent Claim 15 is similar in scope to Claim 1 and is believed patentable for similar reasons.

III. DEPENDENT CLAIMS

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosures in the cited reference, it is respectfully requested that the Examiner specifically indicate those portions of the reference providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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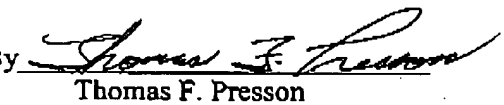
By 
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